

What is claimed is:

1. A method for defining gradation voltages of a liquid crystal display (LCD), comprising the steps of:

5 (a) applying a working voltage and a black voltage sequentially to a plurality of pixels on the liquid crystal display within a vertical scanning period;

(b) integrating a brightness curve resulting from the working voltage with time during the duration of the working voltage to obtain a product, and deriving an effective brightness from the quotient by dividing
10 the product by the duration of the vertical scanning period;

(c) transferring the effective brightness into an effective light transmittance;

(d) iterating the aforesaid steps (a)-(c) to obtain a light transmittance vs. voltage curve; and

15 (e) defining a plurality of gray levels and gradation voltages corresponding to the plurality of gray levels according to the light transmittance vs. voltage curve.

2. The method for defining gradation voltages of a liquid crystal display of Claim 1, wherein the light transmittance vs. voltage curve
20 expresses a dynamic relation between the light transmittance and the gradation voltages.

3. The method for defining gradation voltages of a liquid crystal display of Claim 1, further comprising the step of:

25 dividing the effective brightness by the brightness of a backlight source in the liquid crystal display to obtain the effective light transmittance.

4. The method for defining gradation voltages of a liquid crystal display of Claim 1, wherein the liquid crystal display simultaneously employs a black-data-insertion driving method.

5. The method for defining gradation voltages of a liquid crystal display of Claim 1, wherein each of the gradation voltages given by step (e) is higher than each of the gradation voltages determined by a steady light transmittance vs. voltage curve for the same gray level so as to accelerate the response speed of the liquid crystal display.

6. A method for overdriving a liquid crystal display, employing gradation voltages defined by a dynamic light transmittance vs. voltage curve, comprising the steps of:

(a) applying a working voltage and a black voltage sequentially to a plurality of pixels on the liquid crystal display within a vertical scanning period;

(b) integrating a brightness curve resulting from the working voltage with time during the duration of the working voltage to obtain a product, and deriving an effective brightness from the quotient by dividing the product by the duration of the vertical scanning period;

(c) transferring the effective brightness into an effective light transmittance;

(d) iterating the aforesaid steps (a)-(c) to obtain a light transmittance vs. voltage curve; and

(e) defining a plurality of gray levels and gradation voltages corresponding to the plurality of gray levels according to the light transmittance vs. voltage curve;

wherein each of the gradation voltages is higher than each of the gradation voltages determined by a steady light transmittance vs. voltage curve for the same gray level so as to accelerate the response speed of the liquid crystal display.

7. The method for overdriving a liquid crystal display of Claim 6, wherein the liquid crystal display simultaneously employs a black-data-insertion driving method.

8. The method for overdriving a liquid crystal display of Claim 6, further comprising the step of:

dividing the effective brightness by the brightness of a backlight source in the liquid crystal display to obtain the effective light transmittance.

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